

**Everyone's Smart
University**

Project (Spring 2021)

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Section

Master

Date

Thursday

18 / 03 / 2021.

Course Code

(PMG510)

Project Risk Management

Instructions:

- آخر موعد للتسليم هو يوم السبت 08-05-2021 في تمام الساعة ٩ مساءً.
- الإجابة متاحة باللغة الإنجل - يية أو اللغة العربية مع مراعاة أن تكون المصطلحات العلمية باللغة الإنجل - يية.
- يتم تسليم المـ لـشوع في صيغة ملف pdf مع اللـ يام نموذج الجامعة ولن تقبل أي مستندات أخرى.
- يجب مراعاة أقسام البحث الرئيسية (مقدمة Introduction، دراسات علمية سابقة Review Literature، طريقة البحث Methodology، النتائج والمناقشة Discussion and Results، وأخـ يا المراجع References. وان كان هناك ملحقات Appendices يتم إضافتها)
- يجب اللـ يام بـ Theme مـ حد كما يـ يـ:
- حجم الخط 12.
- نوع الخط Arial.
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Instructor's Name: Eng. Mosaab M. Hamed

Project:

Risk Identification and Analysis (Based on the project you chose in APM)

The objective of this report is to identify project risks, prepare a risk probability matrix, and carry out an analysis of selected risks. Referring to the project you select in **Advanced projects management APM course**, your task is to prepare a risk management plan that identifies potential risks in **the selected stage of the project** and identify risk management strategies.

From the course content and readings, you know that the overall purpose of risk planning is to anticipate possible risk events and be ready to take appropriate action when risk events occur—to eliminate or reduce negative impacts on the project.

You may wish to begin this exercise with a brainstorming about potential risks to get candidate risks “on the table” for consideration. And then identify and refine that wording for risks that have some realistic chance of occurring in this stage. For example, potential weather problems present a real obstacle to completing field data collection by the planned completion date. It is also an issue that the project manager will ultimately have to plan for, as opposed to other issues such as a major disaster (e.g., your office burning down), is not a high-enough probability event that requires much time in planning. As described below, you will select several of the identified risks and carry out a risk analysis.

You will use the distilled list of risks to make a risk probability/impact matrix. The matrix will have at least three categories (high/medium/low) for probability and impact.

Remember that it is important to name risks effectively—use words that describe the risk event and point to the impact on the project (e.g., “injury of field technician disrupts data installation work”).

After completion of the risk matrix, document a risk analysis for the selected risks. This detailed documentation for that selected risk will include:

- a description of the risk and potential impacts (schedule, quality of work, cost, etc.) on the project.
- indicators or triggers that would be monitored to help identify the risk as early as possible.
- specific risk response strategies to take.

Using probability and impact matrix calculate the **Expected Monetary Value (EMV)** for all risks that have the impact in terms of cost \$\$.

Best of luck...

المشروع:

التعرف على المخاطر وتحليلها (بحث مبنى على مشروعك الذي اخترته في مادة ادارة المشاريع المتقدمة)

الغرض من هذا التقرير هو التعرف على المخاطر المحيطة بالمرحلة التي تختارها المرحلة من مراحل مشروعك (نفس المرحلة التي اخترت التطرق لها في مشروعك لمادة إدارة المشاريع المتقدمة **Advanced project management**) حيث أن مهمتك هي تحضير خطة متكاملة لإدارة المخاطر تشمل التعريف بالمخاطر المحتملة التي تحيط بتلك المرحلة وتحضير مصفوفة احتمالية المخاطر ومن ثم القيام بالتحليل لهذه المخاطر المختارة وتحديد استراتيجيات إدارة المخاطر المناسبة لكل خطر على حدة.

من محتويات المقرر والمصادر الأخرى المتاحة أصبحت تعلم الآن أن الغرض العام لمرحلة التخطيط للمخاطر هي توقع أحداث المخاطر المحتملة والتجهز لتخاذ ردة الفعل المناسبة عند وقوع الخطر – لمنع أو تقليل الأثر السلبية على المشروع.

قد تحوّذ بداية هذا البحث بعصف ذهني عن ماهية المخاطر التي قد تحيط بتلك المرحلة من مراحل مشروعك, وذلك للحصول على قائمة بتلك المخاطر. ومن ثمّ تحديد وتصنيف هذه القائمة للوصول إلى قائمة مختصرة بالمخاطر التي لها فرصة واقعية أكبر في الحدوث. على سبيل المثال: المشاكل الجوية المتوقعة والتي تمثل عقبة حقيقية أمام اكتمال جمع البيانات من المواقع في أو قبل الوقت المحدد، هذه تعتبر مشكلة على مدير المشاريع أن يضعها في الحسبان. من ناحية أخرى، فإن المخاطر غير الواقعية مثل الكوارث الطبيعية والعاصير (تلك التي تسبب حريقاً بمكتبك وفقدان الأوراق المهمة) ليست لها احتمالية وقوع عالية وبالتالي التستدعي تضيق الكثير من الوقت في التخطيط لها. كما سيتبين لك، ستقوم باختيار عدة مخاطر من تلك التي قمت بالتعرف عليها لتحليلها.

ستقوم باستخدام هذه القائمة المختصرة لعمل مصفوفة المخاطر (الاحتمالية/الأثر). المصفوفة ستحتوي على الأقل على ثالث تصنيفات (عالي/متوسط/منخفض) لإلحتمالية والأثر.

التنس استخدام أسماء تصف طبيعة المخاطر بصورة فعالة – قم باستخدام كلمات تصف الحادثة الخطرة وتشير الى أثرها على المشروع (مثل: إصابة أحد الفنيين في الموقع مما يؤثر على أعمال التركيب).

بعد انتهاءك من مصفوفة المخاطر، قم بتوثيق تحليلك للمخاطر المختارة. هذا التسجيل المفصل للمخاطر يجب أن يتضمن:

- وصف للخطر وأثاره المحتملة (الجدولة، جودة العمل، التكلفة، الخ)
- المؤشرات والمحفرات التي يجب مراقبتها للمساعدة في التعرف على هذا الخطر قبل وقوعه
- تفصيل للاستجابة المقترحة للتصدي لهذا الخطر

باستخدام مصفوفة الاحتمالت والتأثير ، احسب **القيمة النقدية المتوقعة EMV** (لجميع المخاطر التي لها تأثير من حيث التكلفة. \$).

مع تمنياتي بالتوفيق.

Project Risk Management

Risk assessment is the process of recognizing, analyzing, and risk mitigation to an agency's inflow of capital. These difficulties or dangers could arise from a combination of reasons, such as budgetary restrictions. Liquidity, responsibilities, strategy formulation errors, accidents, or environmental catastrophes are all factors that should be considered.

IT privacy concerns and data-related dangers, as well as risk mitigation strategies to eliminate them, have risen to a significant point. For digitized businesses, this is at the top of the priority list. As a result, companies' detection and response systems have deteriorated. Risks to their digital assets, such as sensitive business documents and a customer's personally identifiable information, are being monitored. Intellectual property and personally identifiable information (HIPAA) are increasingly being used in risk management. Any company or agency faces the risk of unanticipated, costly accidents. This could save them money or cause them to shut down permanently. Businesses may use risk management to help them make better decisions.

Take a proactive approach by lowering risks and extra costs before they happen. By implementing a risk management plan, an organization can save money while still securing its future. Before a danger or event occurs, consider all of the potential threats or incidents. This is due to the fact that effective risk management is important. An organization's plan will aid in the establishment of policies to avoid potential risks and minimize their effect when they do exist, and how to deal with the ramifications. Organizations would have more trust in their strategic decisions. If they can consider and handle risk, they will have more options. In addition, good corporate governance practices are important. An organization's ability to achieve its goals would be aided by a focus on risk management.

Literature review:

The foundations of risk management are probability theory and decision-making under uncertainty. The projected efficiency theory, norm activation theories, even stakeholder theory, in particular, had a significant impact. People make choices based on the expected utility of different options, according to the principle of expected utility theory. The bounded rationality theory claims that in the actual world, it's difficult to comprehend various outcomes and their possibilities. The effect of human experience on decision-making can be simulated using prospect theory. (Misra, Kumar, and Maharaj, 2007).

Project risk management is the art and science of identifying, evaluating, and responding to risk over the life of a project to achieve project goals

(Schwalbe, 2007). Risk evaluation has been conducted informally by everyone since the dawn of time, whether they are aware of it or not. Risk management has

been a well-known management term in recent years. if it's true or not Modern risk management has its roots in insurance, with which it has been closely associated for more than three decades (Snider, 1991). Risk evaluation hasn't always been a happy story, and testing hasn't always been helpful. demonstrates that it is currently incapable of dealing with unforeseen circumstances. Due to technical complexity, contract policy, public opposition, and project environmental effects, project management was strongly chastised in the 1960s for failing to perform projects (Morris, 1997). In addition, a project manager will conclude the last four are project team concerns within their absolute authority (Ibid), and it is widely assumed that these will be passed up a management chains to elevated amounts (Chapman & Ward, 1997). The following are the key targets of risk management (Yee et al., 2001):

To customers the option is more organized and less discretionary.

A greater understanding of the challenges that a project faces can be achieved by identifying threats and solution situations.

To aid in deciding which risks need urgent action and which can be postponed. To make managers aware that a project will have a wide range of stakeholders. Methodology:

His study takes a descriptive approach. We collect data from previous research and the literature to address study risk management. We'll go into risk management in more detail in the future.

The design is currently being discussed. Conclusion and Discussion: Tactic for Risk Management

He ESU coffee shop's launch strategy included talking to stakeholders (interviewing) and a conversation among the different employees to decide the maximum risks that should be avoided.

should be included when completing the project plan All threats were identified and a countermeasure for each risk was devised. Staff will make every effort to ensure that, if risks occur, measures are taken to minimize them.

Methodology:

High – Catastrophic (Rating A – 100) risk effect

(Rating B – 50) Medium – Critical

Low – Vulnerable (Rating C – 10)

It establishes the timeline in which this risk will have an effect. The following are examples of one:

1. Policy and government changes

Changes in political and ideological affiliations in countries around the world will exacerbate trade risks.

Even if the governments allow a less strict approach, maintain a higher degree of operational enforcement. This decreases the probability of noncompliance and the need for additional regulatory protections. Shippers should also look for "third parties," or non-affiliated carriers, operating outside of the countries in question.

2. InstabilityEconomic

Economic insecurity is another challenge to global trade. For example, the bankruptcy of South Korea's seventh largest shipping company (Hanjin Shipping) resulted in a significant reduction in global supply chain shipping capability.

3. Events of extreme weather

Extreme weather is one of the world's most serious threats. Unprecedented weather Tropical storms have the ability to launch themselves like garbage ocean carriers. Tropical storms haven't posed a significant threat in recent years, depending on the path they take. The threat of tropical storms, on the other hand, is real.storms is on the rise in global climate change

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4. Risks to the environment

Another critical risk in global trade is its impact on the environment. Environmental responsibility and sustainable practises are both forms of social responsibility and ocean carriers will be subject to greater scrutiny as more environmental laws are passed

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5. Disasters

Natural and human-caused events are not included in the weather category. Earthquakes and starvation, for example, may have an effect on global trade.

6. Connectivity

In the 24/7 world of modern trade, there are also global supply chain threats within the connectivity of current systems. Despite the fact that open-source software allows for system integration, system integration and modification raises the danger. Each amendment could result in higher upgrade costs, and poorly integrated systems could result in enclosures and disturbances.

7. Attacks on Cyber

In modern supply chain management, cyber-attacks have become a predominant risk. Somebody with a malice can drive down whole networks of the supply chain and force freight rates to rise. Cyber-attacks also are becoming a terrorist weapon to undermine your digital footprint by anyone, government or agency,

8. Consistency of supplier

After a disaster, only 45% of suppliers can continue to work. Any risk may result in a disruption to the consistency of the supplier. The consistency of the supplier is also applicable to the manufacturer. The risk of interruption to raw and recovered materials is.

Literature Review:

Processes for project risk management

Risk Analysis and Project Management (Del Cano & De La Cruz, 2002), Two-Pillar Risk Management (TPRM) (SEYED & HATEFI, 2009), Active Threat and Opportunity management (ATOM) and Project Risk Analysis and Management have very similar structures and joint objectives. Project Uncertainty Management In fact, three macro-phases could be summarized. The first steps of these processes are to understand and plan the risk management effort by determining the project's level, extent and objective. The mid-term steps are designed to identify risk alongside its causes, effects and how they relate to each other, to assess their likelihood of occurrence and impact, to prioritize risk response strategies and to establish plans for contingency

Techniques for risk assessment and their classification requirements

common criterion examines the nature of the available information. Qualitative techniques require qualitative information in the form of descriptions and recommendations, while quantitative techniques use quantitative information to analyze risk occurrence and impact in a numerical manner. Another criterion proposes the selection of techniques based on the information a project needs.

Also, what techniques are to be used are determined by the nature, the size, the complexity, the level of innovation and the project cycle phases. The risk management is especially crucial in the project planning stage and increases its scope and depth when the project progresses towards the implementation phase, while the completion phase decreases (Ward & Chapman, 2003).

The risk analysis objective may also be a criterion for identifying appropriate risk management techniques such as economic and financial results controls and quality variances or tracking delays (Kmec, 2011).

Timeline	Description
Near	Now- until one month
Mid	next 2-6 months

Impact-Probability Matrix:

Danger classification examples include:

Risk event	Probability	Impact rating	Score
Your text will be rewritten by QuillBot. Start by typing or pasting something into this box, then hit the enter key.	2%	C	20
There is a risk of goods being unable to be transported due to bad weather.	50%	A	30
The serious threat	80%	B	100

for businesses is that prices will rise and waiting times will extend across national borders, especially as customers adjust to new processes.			
Total			150

Computation of EVM:

Risk	Risk Probability (P)	Cost Impact (IC)	Risk Contingency (P*IC)
A	0.2	\$4000	\$1.200
B	0.5	\$10000	\$6.200
C	0.8	\$12000	\$10.900

The risk response plans are motivated by the following goals:

1. Risk mitigation
2. Reduces the likelihood of a precarious position.
3. Trying to minimize the impact of risk on project

objectives Discussion:

A variety of benefits can be derived by using the system. It helps decision-makers understand building materials and products, thereby enhance organizational performance.command over resources, assisting in the creation and execution of monitoring techniques, and encouraging greater use of risk assessment and management methods, both of which have a massive influence on disaster preparedness.

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Mariam AL atawi